

PRESTO A30 Process System

The A30, A40 and W40 process circulators combine high performance and a very compact design with the advantages of the PRESTO series for a working temperature range down to -40 °C.

Your advantages

- For highly precise, external temperature applications
- Rapid heating and cooling
- Wide working temperature ranges without changing fluids
- Highest performance with small footprint
- Space-saving design optimizes space utilization in your lab
- Built-in 5.7" industrial color touchscreen
- USB connection
- Ethernet
- SD-Card slot
- RS232
- Modbus
- RS485 (Accessory)
- Profibus DP (Accessory)
- CCC Anschlüsse für Alarm-Ausgang, Pt100-Externfühler und Standby-Eingang
- Removable ventilation grid
- Pump pressure up to 1.7 bar, max. flow rate 40 l/min
- Temperature stability ± 0.01 °C ... ± 0.05 °C
- Alarm output
- Second external Pt100 sensor connection for A40 and W40 (accessory)



Technical data

Available voltage versions		Cooling	
Order No.	9 420 300	Cooling of compressor	1-stage Air
Available voltage versions:			
9 420 300.03	200-230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)		
9 420 300.04	230V/50Hz (UK Plug Type BS1363A)		
9 420 300.05	230V/50Hz (CH Plug Type SEV 1011)		
9 420 300.14	208V/60Hz (Nema N6-20 Plug)		
Other		Electronics	
Sound pressure level dba	54	External pt100 sensor connection	integrated
Classification	Classification III (FL)	2nd external Pt100 sensor connection	not available
IP Code	IP 21	Integrated programmer	8x60 steps
Pump type	Centrifugal Pump	Temperature control	ICC
Pump type Magnetically coupled	1	Absolute temperature calibration	3 Point Calibration
		Temperature display	5.7" TFT Touchscreen
		Temperature setting	Touchscreen
Dimensions and volumes		Temperature values	
Internal usable expansion volume l	1.5	Setting the resolution of the temperature display °C	0.01
Minimal process volume l	2.4	Working temperature range °C	-30.0 ... +250.0
Active heat exchanger volume l	1.4	Temperature stability °C	± 0.01 ... ± 0.05
Weight kg	62	Ambient temperature °C	+5.0 ... +40.0
Dimensions cm (W x L x H)	25 x 59 x 62	Temperature display resolution °C	0.01

Pump connections	M24x1.5 male
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Performance values

200-230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F)

200V/50Hz								230V/50Hz							
Heating capacity kW				2.1				Heating capacity kW				2.7			
Cooling capacity (Ethanol)								Cooling capacity (Ethanol)							
°C	200	100	20	0	-10	-20	-30	°C	200	100	20	0	-10	-20	-30
kW	0.5	0.5	0.5	0.4	0.28	0.17	0.02	kW	0.5	0.5	0.5	0.4	0.28	0.17	0.02
Viscosity max. cST				50				Viscosity max. cST				50			
Refrigerant				R452A				Refrigerant				R452A			
Filling volume g				340				Filling volume g				340			
Global Warming Potential for R452A				2140				Global Warming Potential for R452A				2140			
Carbon dioxide equivalent t				0.728				Carbon dioxide equivalent t				0.728			
Pump capacity flow rate l/min				25				Pump capacity flow rate l/min				25			
Pump capacity flow pressure bar				0.5				Pump capacity flow pressure bar				0.5			

230V/50Hz (UK Plug Type BS1363A)

230V/50Hz							
Heating capacity kW				2.1			
Cooling capacity (Ethanol)							
°C	200	100	20	0	-10	-20	-30
kW	0.5	0.5	0.5	0.4	0.28	0.17	0.02
Viscosity max. cST				50			
Refrigerant				R452A			
Filling volume g				340			
Global Warming Potential for R452A				2140			
Carbon dioxide equivalent t				0.728			
Pump capacity flow rate l/min				25			
Pump capacity flow pressure bar				0.5			

230V/50Hz (CH Plug Type SEV 1011)

230V/50Hz							
Heating capacity kW				1.7			
Cooling capacity (Ethanol)							
°C	200	100	20	0	-10	-20	-30
kW	0.5	0.5	0.5	0.4	0.28	0.17	0.02
Viscosity max. cST				50			
Refrigerant				R452A			
Filling volume g				340			
Global Warming Potential for R452A				2140			
Carbon dioxide equivalent t				0.728			
Pump capacity flow rate l/min				25			

Pump capacity flow pressure bar 0.5

208V/60Hz (Nema N6-20 Plug)

208V/60Hz

Heating capacity kW	2						
Cooling capacity (Ethanol)							
°C	200	100	20	0	-10	-20	-30
kW	0.5	0.5	0.5	0.4	0.3	0.2	0.05
Viscosity max. cST	50						
Refrigerant	R449A						
Filling volume g	314						
Global Warming Potential for R449A	1397						
Carbon dioxide equivalent t	0.439						
Pump capacity flow rate l/min	15						
Pump capacity flow pressure bar	0.5						

Benefits



Touch display. Perfect operation.
With the touch display, the user always has an overview of all values and functions. The intuitive and multilingual menu structure enables perfect control.



Convenience for several users
Administrator level for customizing instrument settings, user levels with limited permissions for fast and safe defined access, password protection, all levels adjustable



100 % Cooling capacity
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



Intelligent temperature control.
Intelligent cascade control - automatic and self-optimizing adaptation of the PID control parameters with external stability of +/- 0.05 °C.



Full control
'Temperature Control Features', for individual optimization, access to all important control parameters, additional settings for band limit, limits, co-speedfactor etc.



Control from the external application
External Pt100 sensor connection for precise measurement and control directly in the external application



Highest measuring accuracy
'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration



Intelligent pump system
Reliable and consistent pump capacity, electronically adjustable pump stages or pressure value, automatic adjustment of pump capacity to viscosity



Many interfaces.
Straight-forward remote control, data management, and integration into process structures. USB, Ethernet, RS232, SD card, and alarm off are permanently integrated. Further interfaces available as accessories.



Space-saving footprint
All connections as well supply and exhaust air are located at the front or rear, no venting grids on the sides, units can be placed close to each other or the application



Continuous operation up to +40 °C
Robust temperature control instrument, continuous operation even at ambient temperatures of up to +40 °C



Maximum safety.
Classification III according to DIN12876-1 enables safe operation, even with flammable fluids. Automatic switch-off in the event of high temperature or low liquid level.



Duplicate safety
Adjustable high temperature cut-off for internal tank and for integrated expansion vessel



For flammable bath fluid
Classification III (FL) according to DIN 12876-1



Quick support
If an error occurs, the integrated Black-Box function permits fast diagnosis by the JULABO service team



100% Checked.
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



Green technology.
Development consistently applied environmentally friendly materials and technologies.



JULABO. Quality.
Highest standards of quality for a long product life.



Quick start.
Individual JULABO consultation and comprehensive manuals at your disposal.



Satisfied customers.
11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.